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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,971	09/15/2003	Thomas F. Papallo	138562	1096

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EXAMINER	
WILLOUGHBY, TERRENCE RONIQUE	
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2836	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

TH

Office Action Summary	Application No.	Applicant(s)
	10/662,971	PAPALLO ET AL.
	Examiner	Art Unit
	Terrence R. Willoughby	2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 6/11/2007.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-2, 4-16 18-21, 32-38, 40-44, 46-53, 55-57 and 59 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-2, 4-16 18-21, 32-38, 40-44, 46-53, 55-57 and 59 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/2/07 has been entered.

Accordingly Claims 1, 12, 13, 32 and 46 have been amended and Claims 3, 17, 39 and 54 have been cancelled. No new claims were added. Thus, Claims 1-2, 4-16 18-21, 32-38, 40-44, 46-53, 55-57 and 59 remain pending in the present application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2, 4-11, 32, 35-36, 38 and 40-43 are is rejected under 35 U.S.C. 103(a) as being unpatentable over Qin et al. (6,411,865) and in view of Engel et al. (US 6,167,329).

Regarding claim 1, Qin et al. (Figs. 9-11) discloses the claimed method of protecting a circuit having power switching devices, the method comprising:

defining characteristics of a zone of protection of the circuit (col. 1, ll. 5-10);

defining a protection matrix based at least in part upon said characteristics (col. 1, ll. 5-10);

performing a zone protective function on said zone of protection using said protection matrix (Abstract and col. 8, ll. 23-38), wherein said protection matrix comprises a matrix of protection coefficients used by said protection function (col. 6, ll. 51-64), wherein the step of performing said zone protection function is based at least in part upon electrical parameters of said zone of protection (col. 2, ll. 14-32; col. 3, ll. 15-18 and ll. 57-67), said electrical parameters being communicated over a data network to a microprocessor (col. 7, ll. 56-66), said microprocessor performing said zone protective function (abstract, ll. 7-14; col. 2, ll. 5-7 and ll. 26-32); and controlling said microprocessor (col. 2, ll. 26-32) to perform zone protection of the switching devices based at least in part on said electrical parameters (col. 3, ll. 57-67; col. 6, ll. 54-63; col. 8, ll. 47-55).

Qin et al. does not disclose the microprocessor performing instantaneous overcurrent protection.

Engel et al. discloses a microprocessor for performing instantaneous overcurrent protection functions (abstract, ll. 4-8; col. 4, ll. 65-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the control device of Qin et al. with a

microprocessor performing instantaneous overcurrent protection as taught by Engel et al. to improve the circuit interrupter by increasing sensitivity to the monitored current over it's normal operating range.

Regarding claims 2 and 38, Qin et al. in view of Engel et al. discloses the claimed said method of claims 1 and 32, wherein said zone protective functions is a plurality of zone protective functions, each of said plurality of zone protective functions being performed on said zone of protection based at least in part upon said protection matrix (col. 3, ll. 41-52).

Regarding claims 4 and 42, Qin et al. in view of Engel et al. discloses the claimed method of claims 1 and 41. Qin et al. (Fig. 1) discloses sensing said electrical parameters with a sensor (col. 3, ll. 1-4), communicating signals representative of said electrical parameters (col. 2, ll. 23-32) to a module (22-28), and communicating said signals to said microcomputer (20), wherein said module, said sensor and said microcomputer are communicatively coupled over said network (col. 1, ll. 13-16).

Regarding claims 5 and 37, Qin et al. in view of Engel et al. discloses the claimed said method of claims 1 and 32, further comprising: monitoring a topology of the circuit, said topology being based at least in part upon a status for each of the power switching devices in the circuit, said status being either opened or closed; defining said zone of protection based at least in part upon said topology, and adjusting said zone of protection based at least in part upon changes to said topology (Qin et al., col. 4, ll. 58-64; col. 3, ll. 33-40).

Regarding claims 6 and 33, Qin et al. in view of Engel et al. discloses the claimed said method of claims 1 and 32, wherein the step of defining said characteristics comprises defining a plurality of combinations of states of the power switching devices in said zone of protection, each of said states being opened or closed (Qin et al., col. 4, ll. 58-64).

Regarding claims 7 and 34, Qin et al. in view of Engel et al. discloses the claimed said method of claims 6 and 33, wherein the step of defining said characteristics further comprises defining power flow configurations for said zone of protection based upon said plurality of combinations of said states of the power switching devices in said zone of protection (Qin et al., col. 3, ll. 41-52).

Regarding claim 8, Qin et al. in view of Engel et al. discloses the claimed said method of claim 7, further comprising: defining a definition matrix (Qin et al., col. 6, ll. 60-61; col. 8, ll. 17-22) based at least in part upon said power flow configurations; and defining said protection matrix (Qin et al., Figs. 9-11 and col. 8, ll. 23-38) based at least in part in part upon said definition matrix.

Regarding claim 9, Qin et al. in view of Engel et al. discloses the claimed said method of claim 6, further comprising: defining a zone state matrix (Qin et al., col. 6, ll. 54-61) based upon said plurality of combinations of said states of the power switching devices in said zone of protection (Qin et al., col. 3, ll. 41-52); and defining said protection matrix based at least in part upon said zone state matrix (Qin et al., col. 6, 61-67).

Regarding claims 10 and 43, Qin et al. in view of Engel et al. discloses the claimed said method of claims 6 and 32, further comprising opening at least one of the power switching devices in said zone of protection based upon said protection function (Qin et al., col. 8, ll. 10-17).

Regarding claims 11 and 40, Qin et al. in view of Engel et al. discloses the claimed said method of claims 10 and 39, wherein a microprocessor is configured to operate each of the power switching devices in the circuit (Qin et al., col. 7, 60-65).

Regarding claim 32, Qin et al. in view of Engel et al. discloses the claimed said protection system for coupling a circuit having power switching devise and a zone of protection, the system comprising:

Qin et al. (Fig. 1) discloses a control processing unit (20) being communicatively couplable to the power switching devices (30-36) so that said control processing unit can perform all primary power distribution functions for the circuit (Engel et al., col. 1, ll. 56-68) and so that said control processing unit can perform a zone protective function on said zone of protection based at least in part upon characteristics of said zone of protection (col. 3, ll. 60-67), said characteristics being actual and possible characteristics (col. 2, ll. 24-33), wherein said control processing unit (20) utilizes a protection matrix to perform said zone protective function (abstract), said protection matrix being defined at least in part by said characteristics of said zone of protection, and wherein said protection matrix comprises a matrix of protection coefficients used by said zone protective function (col. 6, ll. 51-64).

Regarding claim 35, Qin et al. in view of Engel et al. discloses the system of claim 32. Qin et al. (Fig. 1) discloses the claimed said system of claim 32, wherein said control processing unit (20) defines said zone of protection (col. 2, ll. 27-32).

Regarding claim 36, Qin et al. in view of Engel et al. discloses the system of claim 32. Qin et al. discloses the claimed said method of claim 35, wherein said zone of protection is dynamic (col. 3, ll. 34-38; col. 4, ll. 61-64).

Regarding claim 41, Qin et al. in view of Engel et al. discloses the system of claim 32. Qin et al. (Fig. 1) discloses the claimed said system of claim 39, wherein said control processing unit (20) receives parameter signals representative of electrical parameters of the circuit, and wherein said control processing unit opens the power switching devices if a fault is detected in the circuit (col. 7, ll. 60-67 and col. 8, ll. 1-3).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 12-16, 18-21, 44, 46-53, 55-57, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Qin et al. (US 6,411,865) and in view of Engel et al. and in view of Matsko et al. (US 5,875,088).

Regarding claim 12, Qin et al. (Figs. 9-11) discloses the claimed method of protecting a circuit having power switching devices, the method comprising:

a defining characteristics of a zone of protection of the circuit (col. 1, ll. 5-10);

defining a protection matrix based at least in part upon said characteristics (col. 1, ll. 5-10); and

performing a zone protective function on said zone of protection using said protection matrix (Abstract and col. 8, ll. 23-38);

wherein the step of performing said zone protection function is based at least in part upon electrical parameters of said zone of protection (col. 2, ll. 14-32; col. 3, ll. 15-18 and ll. 57-67), said electrical parameters being communicated over a data network to a microprocessor (col. 7, ll. 56-66), said microprocessor performing said zone protective function (abstract, ll. 7-14; col. 2, ll. 5-7 and ll. 26-32); and controlling said microprocessor (col. 2, ll. 26-32) to perform zone protection of the switching devices based at least in part on said electrical parameters (col. 3, ll. 57-67; col. 6, ll. 54-63; col. 8, ll. 47-55).

Qin et al. does not disclose determining a dynamic delay time for opening said at lest one of the power switching devices; and opening said at least one of the power switching devices after said dynamic time has elapsed.

Matsko et al. discloses determining a dynamic delay time (col. 1, ll. 27-64 and col. 2., ll. 17-25 and ll. 41 thru col. 3, ll. 1-4) for opening said at least one of the switching devices; and opening said at least one of the power switching devise after said dynamic time has elapsed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided an adjustable time delay for opening and closing separable contacts for a circuit breaker as taught by Matsko et al. to the power switching device of Qin et al. to improve zone interlocks for electrical switching devices (Matsko et al., col. 3, ll. 39-40).

Qin et al. and Matsko et al. do not disclose a microprocessor performing instantaneous overcurrent.

Engel et al. discloses a microprocessor for performing instantaneous overcurrent protection functions (abstract, ll. 4-8; col. 4, ll. 65-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the control device of Qin et al. and Matsko et al. with a microprocessor performing instantaneous overcurrent protection as taught by Engel et al. to improve the circuit interrupter by increasing sensitivity to the monitored current over it's normal operating range.

Regarding claim 13, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of protecting a circuit having switching devices, the method comprising:

defining a plurality of combinations of states of devices disposed in a zone of protection of the circuit, each of said states being either opened or closed (Qin et al., col. 4, ll. 58-64);

defining characteristics of said zone of protection based at least in part upon said plurality of combinations of said states of the power switching devices disposed in said

zone of protection, said characteristics being the actual and possible characteristics (Qin et al., col. 3, ll. 41-52); and

performing a zone protective function on said zone of protection based at least in part upon said characteristics (Qin et al., abstract);

determining a dynamic delay time (Matsko et al., col. 1, ll. 27-45 and col. 2., ll. 41 thru col. 3, ll. 14) for opening said at least one of the switching devices; and opening said at least one of the power switching devise after said dynamic time has elapsed,

wherein the step of performing said zone protection function is based at least in part upon electrical parameters of said zone of protection (Qin et al., col. 2, ll. 14-32; col. 3, ll. 15-18 and ll. 57-67), said electrical parameters being communicated over a data network to a microprocessor (Qin et al., col. 7, ll. 56-66), said microprocessor performing said zone protective function (Qin et al., abstract, ll. 7-14; col. 2, ll. 5-7 and ll. 26-32); and controlling said microprocessor to perform zone protection instantaneous overcurrent protection of the switching devices based at least in part on said electrical parameters (Engel et al., abstract, ll. 4-8; col. 4, ll. 65-67).

Regarding claim 14, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 13, wherein said zone of protection is dynamic (Qin et al., col. 3, ll. 34-38; col. 4, ll. 61-64).

Regarding claim 15, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 13, wherein the step of defining said characteristics further comprises defining power flow configurations for said zone of

protection based upon said plurality of combinations of said states of the power switching devices in said zone of protection (Qin et al., col. 3, ll. 41-52).

Regarding claim 16, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 13, wherein said zone protective functions is a plurality of zone protective functions, each of said plurality of zone protective functions being performed on said zone of protection based at least in part upon said protection matrix (Qin et al., col. 3, ll. 41-52).

Regarding claim 18, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 13, further comprising sensing said electrical parameters with a sensor (Qin et al., col. 3, ll. 1-4), communicating signals representative of said electrical parameters (Qin et al., col. 2, ll. 23-32) to a module (Qin et al., Fig. 1, 22-28), and communicating said signals to said microcomputer (Qin et al., Fig. 1, 20), wherein said module, said sensor and said microcomputer are communicatively coupled over said network (Qin et al., col. 1, ll. 13-16).

Regarding claim 19, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 13, further comprising: monitoring a topology of the circuit, said topology being based at least in part upon a status for each of the power switching devices in the circuit, said status being either opened or closed; defining said zone of protection based at least in part upon said topology, and adjusting said zone of protection based at least in part upon changes to said topology (Qin et al., col. 4, ll. 58-64; col. 3, ll. 33-40).

Regarding claim 20, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 13, further comprising opening at least one of the power switching devices in said zone of protection based upon said protection function (Qin et al., col. 8, ll. 10-17).

Regarding claim 21, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 20, wherein a microprocessor is configured to operate each of the power switching devices in the circuit (Qin et al., col. 7, 60-65).

Regarding claim 44, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 32, wherein said control processing unit (Qin et al., Fig. 1, 20) determines a dynamic delay time (Matsko et al., col. 1, ll. 27-45) for opening at least one of the power switching devices (Qin et al., Fig. 1, 30-36), and wherein said at least one of the power switching devices (Qin et al., col. 8, ll. 10-17), and wherein said at least one of the power switching devices is opened after said dynamic delay time has elapsed (Matsko et al., col. 1, ll. 27-45).

Regarding claim 46, Qin et al. In view of Matsko et al. and in view of Engel et al. discloses a power distribution system comprising:

a circuit having power switching devise (Qin et al., Fig. 1, 30-36) and a zone of protection (Qin et al., abstract); and

a control processing unit (Qin et al., Fig. 1, 20) being communicatively couple to the power switching devices (Qin et al., Fig. 1, 30-36), wherein said control processing unit can perform all primary power distribution functions for the circuit (Engel et al., col. 1, ll. 56-68) and performs a zone protective function on said zone of protection based at

least in part upon characteristics of said zone of protection (Qin et al., col. 3, ll. 60-67), said characteristics being actual and possible characteristics (Qin et al., col. 2, ll. 24-33),

wherein said control processing unit (Qin et al., Fig. 1, 20) determines a dynamic delay time (Matsko et al., col. 1, ll. 27-45) for opening at least one of said power switching devices (Qin et al., Fig. 1, 30-36), and wherein said at least one of said power switching devices is opened after said dynamic delay time has elapsed (Matsko et al., col. 1, ll. 27-45).

Regarding claim 47, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 46, wherein the step of defining said characteristics comprises defining a plurality of combinations of states of the power switching devices in said zone of protection, each of said states being opened or closed (Qin et al., col. 4, ll. 58-64).

Regarding claim 48, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 46, wherein the step of defining said characteristics further comprises defining power flow configurations for said zone of protection based upon said plurality of combinations of said states of the power switching devices in said zone of protection (Qin et al., col. 3, ll. 41-52).

Regarding claim 49, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said system of claim 46, wherein said control processing unit (Qin et al, Fig. 1, 20) defines said zone of protection (Qin et al., col. 2, ll. 27-32).

Regarding claim 50, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 49, wherein said zone of protection is dynamic (Qin et al., col. 3, ll. 34-38; col. 4, ll. 61-64).

Regarding claim 51, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 46 further comprising: monitoring a topology of the circuit, said topology being based at least in part upon a status for each of the power switching devices in the circuit, said status being either opened or closed; defining said zone of protection based at least in part upon said topology, and adjusting said zone of protection based at least in part upon changes to said topology (Qin et al., col. 4, ll. 58-64; col. 3, ll. 33-40).

Regarding claim 52, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 46, wherein said zone protective functions is a plurality of zone protective functions, each of said plurality of zone protective functions being performed on said zone of protection based at least in part upon said protection matrix (Qin et al., al., col. 3, ll. 41-52).

Regarding claim 53, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 46, wherein a microprocessor is configured to operate each of the power switching devices in the circuit (Qin et al., col. 7, 60-65).

Regarding claim 55, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said system of claim 46, wherein said control processing unit (Qin et al., Fig. 1, 20) receives parameter signals representative of electrical parameters of

the circuit, and wherein said control processing unit opens the power switching devices if a fault is detected in the circuit (Qin et al., col. 7, ll. 60-67 and col. 8, ll. 1-3).

Regarding claim 56, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 55, further comprising sensing said electrical parameters with a sensor (Qin et al., col. 3, ll. 1-4), communicating signals representative of said electrical parameters (col. 2, ll. 23-32) to a module (Qin et al., Fig. 1, 22-28), and communicating said signals to said microcomputer (Qin et al., Fig. 1, 20), wherein said module, said sensor and said microcomputer are communicatively coupled over said network (Qin et al., col. 1, ll. 13-16).

Regarding claim 57,Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said method of claim 46, further comprising opening at least one of the power switching devices in said zone of protection based upon said protection function (Qin et al., col. 8, ll. 10-17).

Regarding claim 59, Qin et al. in view of Matsko et al. and in view of Engel et al. discloses the claimed said system of claim 46, wherein said control processing unit (Qin et al., Fig. 1, 20) utilizes a protection matrix (Qin et al., col. 2, ll. 26-32), said protection matrix being defined at least in part by said characteristic of said zone of protection (Qin et al., col. 8, ll. 23-38).

Response to Arguments

Applicant's arguments with respect to Claims 1-2, 4-16 18-21, 32-38, 40-44, 46-53, 55-57 and 59 are moot in view of new grounds of rejection (i.e. Engel et al., US 6, 167, 329).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrence R. Willoughby whose telephone number is 571-272-2725. The examiner can normally be reached on 8-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2800 ext. 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

8/2/07
TRW

8/3/07

MICHAEL SHERRY
SUPERVISORY PATENT EXAMINER